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EDWARDS'

• CATECHISM •

OF HYGIENE.



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EDWARDS'

Catechism of Hygiene

FOR USE IN SCHOOLS.

BY

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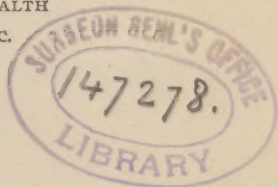
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THIS little book is intended as an introduction to the study of hygiene. It is the framework upon which the superstructure of hygienic knowledge is intended to be built.

It is suggested that the questions and answers in this book should be committed to memory, as are the A B C's.

These questions and answers really contain the essence of the whole science of hygiene, and, when they have been memorized, the pupil will be ready to take up the more advanced books on the subject and read them with intelligent understanding.

THIS book has received the unqualified approval of some of the most distinguished men of letters in the United States. A circular containing extracts from these letters will be forwarded upon application.

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EDWARDS' CATECHISM OF HYGIENE.

LESSON I.

GENERAL CONSIDERATIONS.

Q. 1. What is hygiene?

A. The knowledge that enables us to avoid disease; to preserve our health and to live to old age.

Q. 2. What is the aim of hygiene?

A. To make growth more perfect, decay less rapid, life more vigorous, death more remote.

Q. 3. Can we avoid disease?

A. Yes; in many cases, disease is avoidable.

Q. 4. How can we avoid disease?

A. We can avoid disease by strictly obeying all the laws of nature.

Q. 5. Who ordained the laws of nature?

A. God ordained the laws of nature; He

established certain rules and regulations for our guidance, and He allows us the free will to obey or disregard these laws as we may choose.

Q. 6. Does not God send disease?

A. No; God does not send disease directly to us, but he allows us to be punished by disease if we do not obey the laws of nature that he has established.

Q. 7. What do you mean by the laws of nature?

A. By the laws of nature I mean the rules that govern the growth, reproduction and decay of everything that has life.

Q. 8. If then, no one ought to die of disease, is it possible for us to live forever?

A. No; God has ordered that every living thing must die, but not, necessarily, of disease.

Q. 9. How then should we die?

A. If we obey the laws of nature we will live until we have exhausted the vitality with which God has endowed us at birth.

Q. 10. In what manner ought a person, who obeys the laws of nature, to die?

A. A person who obeys the laws of nature ought never to be sick, and, after having reached a good old age, he should grow gradually weaker, until, when his vital strength is exhausted, he falls asleep and wakes no more.

Q. 11. What do you mean by vital strength?

A. By vital strength I mean the power to live, that is born with each and every one of us.

Q. 12. Is the same amount of vital strength born in each person?

A. No; the amount varies according to the strength and health of our parents.

Q. 13. What do you mean by vital inheritance?

A. By vital inheritance I mean that measure of strength and health that is transmitted to us from our parents.

Q. 14. If our parents are not strong and our vital inheritance is small are we, necessarily, doomed to a short life?

A. By no means; if we are careful to obey the laws of nature we will greatly increase and strengthen our vital inheritance and thus

escape the penalty of disease and premature death which we have inherited from our parents.

Q. 15. What do you mean by hereditary disease?

A. By hereditary disease I mean that whatever disease has existed in the parents is very likely to occur in the children.

Q. 16. Can we do anything to prevent the development of hereditary disease?

A. Yes; by a general observance of the laws of nature and by a special observance of measures calculated to strengthen the part that is weak, by inheritance, we can prevent the development of hereditary disease.

Q. 17. In what manner is hereditary disease perpetuated?

A. Whatever part may be the seat of disease in the parent will be weak and liable to disease in the child.

Q. 18. Does God object to our learning the laws of nature?

A. No; God has given us intelligence in

order that we should learn how best to love Him and to serve Him, and if we learn how to have good health we will be better able to serve Him, and it will make us better Christians.

Q. 19. Why will good health make us better Christians?

A. Because good health of the body makes good health of the mind and a healthy mind will be more inclined to goodness, purity and morality than will be a mind that is diseased.

Q. 20. Is it sinful to neglect our health?

A. It is sinful to neglect our health; it is a mortal sin to commit suicide, and he who neglects his health is, thereby, committing slow suicide.

Q. 21. Is it wrong to take medicine without advice?

A. Yes; medicines used when they are not required are very injurious to health.

LESSON II.

DISEASE; WHAT IT IS; HOW DIVIDED AND
HOW TO AVOID IT.

Q. 22. What is disease?

A. A derangement of some portion of the body by which the function of this part is interfered with.

Q. 23. What do you mean by function?

A. By function I mean the duty that any particular part of the body plays in the maintenance of life.

Q. 24. Give some illustrations of function.

A. It is the function of the eye to see; of the ear to hear; of the nose to smell; of the tongue to taste.

Q. 25. Into how many grand divisions is disease divided?

A. Disease is divided into two grand divisions, acute and chronic

Q. 26. What do you mean by acute disease?

A. By acute disease I mean a disease generally caused by the introduction of some poison from without into the body.

Q. 27. What do you mean by chronic disease?

A. By chronic disease I mean a disease that is characterized by a change in the tissue or structure of the organ that is affected.

Q. 28. What are the distinguishing points of acute disease?

A. Acute disease generally makes the person very sick, confines him to bed or to the house for a time and terminates either in death or restoration to health.

Q. 29. What are the distinguishing points of chronic disease?

A. Chronic disease is slow in its course; it may last for many years and, usually, it does not make the person feel very sick until near a fatal termination; acute disease is open and frank and easily recognizable; chronic disease is masked, insidious and must be carefully looked for or it will not be found.

Q. 30. Does acute disease ever become chronic?

A. Yes; very often, if an acute disease is neglected it will result in a chronic disease.

Q. 31. Is acute disease always fatal?

A. No; only about one out of every five persons sick with acute disease will die.

Q. 32. Is chronic disease always fatal?

A. Yes; chronic disease is, all the time, tending toward a fatal termination.

Q. 33. Can we cure chronic disease?

A. No; we cannot cure chronic disease, but, by obeying the laws of nature, we can hold it in check and thus ward off a fatal termination.

Q. 34. Can you give me a popular illustration of the difference between acute and chronic disease?

A. Yes; if you take a new carriage, with a broken wheel, it will represent acute disease, because the carriage is sound except for one weakness, and when you repair this wheel the carriage is as good as ever; but, if you take a carriage the axles and wheels and springs and

body of which are all old and weak and worn out, it will represent chronic disease, because you can never make this carriage sound and strong again, but, if you are careful, you can drive it about for a long time before it will break down.

Q. 35. How do you divide acute diseases?

A. Into contagious and non-contagious diseases.

Q. 36. What do you mean by a contagious disease?

A. By a contagious disease I mean a disease that can be caught by one person from another.

Q. 37. Name the contagious diseases.

A. Scarlet Fever; Measles; Diphtheria; Whooping Cough; Small-pox; Yellow Fever; Cholera; Chicken-pox.

Q. 38. What is the best way to avoid contagious diseases?

A. The best way to avoid contagious diseases is to keep as far away as possible from the neighborhood of any one who is sick with any of them.

Q. 39. What is the duty of the parents of a family in which there is some contagious disease?

A. It is the duty of the head of every family in which there may be a contagious disease to tack a card on the front door stating that such disease exists so that visitors may be warned away from the danger.

Q. 40. What is the cause of contagious disease?

A. The cause of contagious disease is a little germ, or seed, so small that it cannot be seen with the naked eye.

Q. 41. How does this germ cause disease?

A. When this germ enters the body it grows and multiplies, and when a vast number of them have accumulated in the body they give out a poison that causes the sickness.

Q. 42. Can these germs be carried in letters?

A. Yes; it is very dangerous for any one to receive a letter or anything else that has come from the room of a person who is sick with a contagious disease.

Q. 43. How long will these germs retain their power to cause disease?

A. For a very long time; it is not safe to ever handle anything that has been in contact with, or close to, a person who has had a contagious disease, until it has been disinfected.

Q. 44. What do you mean by disinfection?

A. By disinfection I mean the destruction of the life of these germs.

Q. 45. Are these germs alive?

A. Yes; the germs of disease are just as much alive as is my own body; they are capable of growth and reproduction.

Q. 46. What do you mean by reproduction?

A. By reproduction I mean that each one of these little germs has the power of producing an almost infinite number of germs, equal in size, shape and power to cause disease, to itself.

Q. 47. Can a germ that is dead cause disease?

A. No; a disease germ without life is harmless.

Q. 48. How do we disinfect articles that have

been in contact with a person sick with a contagious disease?

A. By subjecting them to the action of heat and certain chemical agents.

Q. 49. Will heat destroy the life of a disease germ?

A. Yes; a temperature of 250° Fahrenheit will destroy the life of any disease germ and will rob it of its power to cause disease.

Q. 50. Will cold destroy disease germs?

A. No; even freezing will not destroy disease germs; it will make them dormant, but when they are again brought into a warm place they will regain all their activity and power to cause disease.

Q. 51. What chemical agents will destroy disease germs?

A. There are a number of chemical agents that will destroy the life of these germs, but the most reliable is corrosive sublimate.

Q. 52. What caution must be observed in the use of corrosive sublimate?

A. We must never forget that corrosive sub-

limate is a poison, and that if we swallow the solution that is intended for disinfection it will destroy our lives.

Q. 53. Is there any danger in handling corrosive sublimate?

A. No; there is no danger unless we swallow it.

Q. 54. What do you mean by isolation?

A. By isolation I mean keeping the sick person away from everybody else and everybody else away from the sick person.

Q. 55. What do you accomplish by isolation?

A. By isolation you prevent the disease germs from passing from the sick person to those who are well.

Q. 56. What, then, are the two chief factors in the prevention of contagious diseases?

A. The two chief factors in preventing the spread of contagious diseases are *isolation*, which consists in keeping the sick and the well apart, and *disinfection*, which consists in the destruction of the life of the germs.

Q. 57. Will isolation and disinfection restrain the spread of contagious disease?

A. Yes; if faithfully and universally carried out, isolation and disinfection would, ultimately, eradicate contagious diseases.

Q. 58. What do you mean by a non-contagious acute disease?

A. By a non-contagious acute disease I mean an acute disease that is not capable of transmission from one person to another.

Q. 59. Give some examples of non-contagious acute diseases.

A. Inflammation of the Stomach, Pleurisy and Rheumatism are acute non-contagious diseases.

Q. 60. If germs are the cause of contagious diseases, what are the causes of non-contagious diseases?

A. The causes of non-contagious diseases are very numerous, but they may all be referred to some fault of our own, to some disregard of the laws of nature.

Q. 61. Is it dangerous to kiss strange persons?

A. Yes; much disease is conveyed from one person to another by kissing; we should never allow any strange person to kiss us, and we should discourage the practice that is so common for everybody to kiss babies.

Q. 62. Is it dangerous to pet and fondle strange animals?

A. Yes; cats and dogs are subject to diseases very much like those of human beings, and much disease and many deaths are caused by children picking up and petting strange animals that they see on the street or that wander into the house.

Q. 63. What do you say of public funerals of persons who have died of contagious disease?

A. A body that is dead of a contagious disease can give the disease to other persons just the same as a live sick person can, and the funeral of such a person should always be strictly private.

Q. 64. What do you say about funerals in general?

A. A great deal of sickness is caused at funerals by the friends standing about the grave, on cold days, with their hats off; this is a very bad custom, and we should always keep our hats on our heads at funerals.

Q. 65. Is there a difference in the healthfulness of different occupations?

A. Yes; the nature of a person's occupation has a great influence upon his health.

Q. 66. What is the most healthful occupation?

A. Clergymen are the most healthy of all men.

Q. 67. Why are clergymen so healthy?

A. Because it is their duty to become familiar with the laws of God, or of nature, and, having learned, to obey them.

Q. 68. What is the most unhealthful occupation?

A. Hotel waiters are the most unhealthy of all men.

Q. 69. Why are hotel waiters so unhealthy?

A. Because hotel waiters are all the time eating the food and drinking the liquor that the guests leave at the table; they thus ruin their stomachs and destroy their health.

Q. 70. Upon what does the health of our bones depend?

A. The health of our bones, as of all other parts of our body, depends upon good food, properly digested.

Q. 71. If our bones are not healthy what will be the result?

A. If our bones are not healthy they will be weak, and, if they are weak, we will not have straight bodies, and our bones will break easily.

Q. 72. What is the cause of bow legs?

A. Bow legs are caused by allowing small babies to stand on their feet too soon, particularly if the bones are weak.

Q. 73. What do you mean by longevity?

A. By longevity I mean the acquisition of old age.

Q. 74. Who was George Bancroft?

A. George Bancroft was a great historian, who died a few years ago at the great age of ninety-two.

Q. 75. What lessons in longevity can we draw from the life of George Bancroft?

A. From the long and useful life of George Bancroft we can draw the following valuable lessons :

1. Live as much as possible out of doors, never letting a day pass without spending, at least, three or four hours in the open air.
2. Keep all the powers of body and mind occupied in pleasant work. The muscles should be developed and the mind kept active.
3. Avoid excesses of all kinds ; whether of food, drink or whatever nature they may be. Be moderate in all things.
4. Never despair ; be cheerful at all times ; never give way to anger ; never let the trials of one day pass over to the next.

Q. 76. What is the "Tripod of Longevity?"

A. A sound stomach; a warm house and a good temper, all working together will greatly help us to attain old age.

Q. 77. Can you give me some rules of health for winter?

A. 1. Never lean with the back upon anything that is cold.

2. Never take warm drinks and then immediately go out into the cold.

3. Keep the back, especially between the shoulder blades, well covered; also the chest well protected. In sleeping in a cold room, establish the habit of breathing through the nose, and never with the mouth open.

4. Never go to bed with cold or damp feet.

5. Never omit regular bathing.

6. After exercise of any kind, never ride in an open carriage or near the open window of a car for a moment.

7. When hoarse, speak as little as possible until the hoarseness is recovered

from, else the voice may be permanently lost, or disease of the throat be produced.

8. Merely warm the back by a fire and never continue keeping the back exposed to heat after it has become uncomfortably warm ; such exposure is weakening.
9. When going from a warm atmosphere into a cooler one keep the mouth closed, so that the air may be warmed by its passage through the nose before it reaches the lungs.
10. Never stand still in cold weather, out of doors, especially after having taken a slight degree of exercise, and always avoid standing on ice or snow, or where the body is exposed to a cold wind.

LESSON III.

DIGESTION—CARE OF THE BOWELS.

Q. 78. What do you mean by digestion?

A. By digestion I mean the process by which the food that we eat is converted into blood.

Q. 79. Where does digestion take place?

A. Digestion commences in the mouth; is continued in the stomach and is completed in the bowels.

Q. 80. What is the nature of digestion?

A. Digestion is a chemical process by which the food that we eat is so acted upon by the juices of the body that it is converted into a red liquid, called blood, which gives nourishment to the body.

Q. 81. What is the first step in digestion?

A. The first step in digestion, and a most important one, is the chewing of food by our teeth.

Q. 82. Is it necessary for us to chew our food?

A. God placed teeth in the mouth and not in the stomach, because it is absolutely necessary that our food should be thoroughly broken up by our teeth, in chewing, and well mixed with saliva, in the mouth, before it is swallowed into the stomach.

Q. 83. If we do not chew our food what will be the result?

A. If we swallow our food without chewing it, it cannot be properly digested in the stomach; it cannot be converted into good blood and the body will not be properly nourished.

Q. 84. What do you mean by dyspepsia or indigestion?

A. By dyspepsia or indigestion I mean that the food is not properly digested and converted into blood.

Q. 85. What are the causes of dyspepsia?

A. The causes of dyspepsia are many, but chief among them is failure to chew our food; anything that exhausts or irritates the stomach

will also cause dyspepsia; hence, if we eat when we are very tired, or if we do too much work immediately after eating, it will cause dyspepsia.

Q. 86. Will drinking liquor cause dyspepsia?

A. Yes; if we use it too freely it will so irritate the stomach that it cannot properly digest our food.

Q. 87. What will be the ultimate effects of dyspepsia?

A. If dyspepsia or indigestion be long continued it will result in a weakened condition of the body, because of poor nourishment, and in such a poorly-nourished condition of the organs of the body as to favor the production of chronic disease thereof.

Q. 88. How can you avoid dyspepsia?

A. You can avoid dyspepsia by eating proper food, at regular hours; by thoroughly chewing this food and mixing it well with saliva in the mouth; by swallowing it slowly into the stomach and by sitting quietly for fifteen minutes after eating.

Q. 89. Will exercise help digestion?

A. Yes; a walk, taken half an hour after eating, will greatly help digestion.

Q. 90. Does indigestion, or dyspepsia, ever cause bad temper?

A. Yes; a person who suffers from dyspepsia will be very likely to have a bad temper.

Q. 91. Is it important that we should have our meals at regular hours?

A. It is very important that we should have our meals at regular hours, because in this way only can the stomach secure the rest that it requires.

Q. 92. Is it healthful to eat between meals?

A. We should never allow ourselves to suffer from hunger, and if we are really hungry, and it will be some time before the meal hour, it will do us no harm to eat a few crackers or a piece of dry bread.

Q. 93. Is it wrong to eat our meals when we are over-heated or excited by play or work?

A. Yes; we should always sit quietly for a few minutes before commencing to eat; if we

are over-heated or excited we cannot properly digest our food.

Q. 94. What do you say of the boxes in which children carry their lunch to school?

A. Tin or wooden boxes should never be used to carry lunch to school, as they become soiled by the food, and it is impossible to keep them perfectly clean.

Q. 95. How should we carry our lunch?

A. We should carry our lunch in a napkin, that can be washed, or, better still, in a piece of clean wrapping paper that can be thrown away.

Q. 96. What do you mean by constipation?

A. By constipation I mean that a person does not have a movement from the bowels every day.

Q. 97. Is it necessary that we should have daily movements?

A. Yes; it is absolutely necessary; it is impossible for a person to have continued good health without daily movements.

Q. 98. How can we secure such daily movements?

A. We can secure daily movements by cultivating the habit of having them at the same hour every day, and, when this habit has been established, by persevering in it.

Q. 99. When we have established this habit what will be the result if we neglect the inclination?

A. If we neglect the inclination at the regular hour it will not manifest itself until the next day, and if we repeatedly neglect the inclination we will become constipated.

Q. 100. If we become constipated will it cause disease?

A. Yes; there is no one agency that causes more disease than constipation.

Q. 101. Why is constipation so dangerous?

A. Because that which we evacuate is the waste or refuse of the body, and if we do not pass it away it will depress all the functions of the body, will poison us and will make us very susceptible to the cause of any disease that may approach near to us.

Q. 102. Can you give a popular illustration of the evil effects of constipation?

A. Yes; if you do not regularly rake down the ashes in a stove and remove them, the fire cannot burn brightly; you may pile on the coal, but you will get very little heat.

Q. 103. How do you apply this comparison?

A. That which you evacuate from the bowels are the ashes of the human body, and if you do not regularly remove them the vital fire of the body cannot burn properly, just as the fire in the stove will not burn if it be choked by ashes.

Q. 104. Is it right to take medicine to secure these movements?

A. No; it is very injurious to make a practice of taking such medicine; it will make the constipation worse; the habit should be acquired by regularity.

LESSON IV.

FOOD; WHAT IT IS AND WHAT IT DOES;
EATING.

Q. 105. What do you mean by food?

A. That which I eat is called food.

Q. 106. Is food necessary for life?

A. Yes; without food life would be impossible.

Q. 107. Why is food so necessary to life?

A. Because life consists in a breaking down and building up of the tissues of the body, and we require food to build up that which the act of living has broken down.

Q. 108. How does food build up the body?

A. The food that we eat is digested in the mouth, stomach and bowels and is converted into blood, and this blood gives nourishment to the body and builds it up.

Q. 109. How does the blood nourish the body?

A. The blood, which is a red liquid, flows all over the body in little tubes or pipes, and it contains everything that is necessary to repair any part of the body.

Q. 110. Give an illustration of how the blood repairs the body.

A. Just as the carpenter, with his tools, will walk through a house and drive a nail here and add a strip of wood there and plane down a door that is too large and put on a little paint where it is worn off and fill a hole with putty, so the blood, flowing all over the body, will leave at each part of the body that which may be required to keep it in good condition.

Q. 111. If the blood is not good can we have good health?

A. No; if the blood is not good it will be impossible for us to have good health.

Q. 112. How can we secure good blood?

A. We can make good blood by properly eating good food and by being careful to keep our

stomachs in good condition, so that they can properly digest this food.

Q. 113. How can we keep our stomachs in good condition?

A. We can keep our stomachs in good condition by eating slowly; thoroughly chewing our food and avoiding everything that would tend to irritate our stomachs.

Q. 114. What kind of things will irritate the stomach?

A. Any kind of liquor; very highly-seasoned food; sauces; anything that "bites" the tongue will irritate the stomach.

Q. 115. What do you mean by highly-seasoned food?

A. By highly-seasoned food I mean food in the cooking of which a great deal of pepper or mustard or spices or irritating sauces have been used.

Q. 116. Should our food be well cooked?

A. Yes; our food should be well cooked, particularly that which is derived from animals, because animals have many diseases, the germs

of which are in their flesh, and if we eat these germs they may cause disease in us, unless we have first killed them by thorough cooking.

Q. 117. How should our food be cooked?

A. It should be boiled or roasted or baked or broiled, but never fried.

Q. 118. Why should we not fry our food?

A. Because it is very hard for the stomach to digest food that is fried.

Q. 119. Do we require a variety of food?

A. Yes; while life can be sustained, for a time, on a single article of food, the best health is secured by a varied diet.

Q. 120. What is the best kind of food?

A. For children, the best food is that which is plain; vegetables and meat; bread and butter; milk and custards are the best. All fancy dishes should be avoided by children.

Q. 121. Are coffee and tea good for us?

A. There is no nourishment in coffee and tea; they will not repair the body, and will be injurious to children.

Q. 122. What do you say about cocoa?

A. Cocoa is very nourishing, and will make a good drink for children.

Q. 123. Is ice cream a healthful thing to eat?

A. Yes; ice cream is healthful if it is made from pure articles and eaten at the right time.

Q. 124. When is the right time to eat ice cream?

A. Ice cream may be eaten at any time, except at the end of a hearty meal; it is very bad for digestion to complete a meal with ice cream or any very cold article.

Q. 125. Why are very cold articles unhealthful at the close of a meal?

A. Because the stomach and its contents must be warm in order that digestion may be properly performed, and any very cold articles, such as ice cream, will so chill the stomach and its contents that digestion will be seriously interfered with.

Q. 126. Is milk a good food?

A. Yes; milk is a very good food for everybody.

Q. 127. What is the proper way to drink milk?

A. We should never "gulp" milk down; the proper way to drink milk is to sip it slowly.

Q. 128. What do you say about candy?

A. A little good, pure candy will not do us any harm, but much of the candy that is for sale in the stores is very impure, and will ruin our health; if we eat very much, even of good candy, it will ruin our teeth and spoil our stomachs.

Q. 129. What do you say about children hurrying off to school, in the morning, without breakfast?

A. It is a most injurious practice that will, sooner or later, ruin the health of any child and make him an invalid for life. A child should never be allowed to start to school until a good breakfast has been eaten.

Q. 130. What do you mean by the adulteration of food?

A. By the adulteration of food I mean that those who sell us our food will mix with it

something that is cheaper than the article they are selling and that looks like it.

Q. 131. Give an illustration of the adulteration of food.

A. White sugar is often adulterated with a white earth.

Q. 132. Why is food adulterated?

A. Because by selling a cheaper article at the same price as a dearer one the storekeeper makes more money.

Q. 133. Is adulteration of food injurious to health?

A. Some forms of adulteration are injurious to health; all adulteration is not so injurious, but all of it is fraud.

Q. 134. How can we prevent this adulteration?

A. We can prevent adulteration by having all the people insist upon pure food, and by having laws to punish those who adulterate food.

Q. 135. Is much of our food adulterated?

A. Yes; a very large proportion of the articles that we eat are adulterated.

Q. 136. If you swallow a penknife, or a coin, or a marble, or anything like this, what should you do?

A. If you swallow any foreign article do not get frightened; when it is swallowed all danger is passed. Eat quantities of mashed potatoes and bread dipped in milk, and look for the foreign body in the discharges from the bowels. Do not take any medicine.

LESSON V.

VENTILATION—PURE AND IMPURE AIR— BREATHING.

Q. 137. What do you mean by ventilation?

A. By ventilation I mean the admission of pure air into, and the removal of impure air from, a house or room.

Q. 138. What do you mean by pure air?

A. By pure air I mean the air as it exists in nature, without any foulness or impurity.

Q. 139. What is the composition of pure air?

A. Pure air consists of a mixture of oxygen and nitrogen.

Q. 140. What relative proportions have these ingredients to each other?

A. In one hundred parts of pure air there will be twenty-one parts of oxygen and seventy-nine parts of nitrogen.

Q. 141. What do you mean by impure air?

A. By impure air I mean air that has in it disease germs; or gases that have been formed from the decomposition of organic matter; particles of harmful dust, or anything that will be injurious to health.

Q. 142. Is pure air necessary to health?

A. Yes; it is absolutely necessary that we should breathe pure air.

Q. 143. What do you mean by inspiration?

A. By inspiration I mean the act of breathing air into the lungs.

Q. 144. What do you mean by expiration?

A. By expiration I mean the act of breathing air out of the lungs.

Q. 145. Is the air that we breathe out of the lungs pure?

A. No; the air that we breathe out of our lungs is full of carbonic acid, and is not pure.

Q. 146. Would the air that we breathe out of our lungs be suitable for another person to breathe into his lungs?

A. No; if such air were breathed in it would

not support healthy life and would make us sick.

Q. 147. What part of the air is necessary to life?

A. The oxygen is the element that supports life.

Q. 148. If you were shut up in a box, so tight that no air could get into it, what would happen?

A. As soon as you had breathed all the oxygen in this box you would die.

Q. 149. If you are all the time in a room in which there is too little oxygen and too much carbonic acid, what will happen?

A. There will not be enough oxygen in the air to support healthy life; you will not be strong and well, and you will be very liable to catch any disease that you may come into contact with.

Q. 150. How can you get enough oxygen to give you health?

A. By passing as much of your life as possible in the open air. out of doors, and, when

you are in the house, by having good ventilation and by being careful that there are not too many persons in a room at one time.

Q. 151. How much air does a person require?

A. Each person requires about three thousand cubic feet of air every hour.

Q. 152. Is it necessary for each person to have three thousand cubic feet of space in a room?

A. No; the air from outside will come through the cracks of windows and doors and through the brick and stone walls, so as to be, all the time, bringing in a fresh supply of oxygen and letting the impure air get out.

Q. 153. How much space, then, ought there to be in a room for each person?

A. There ought to be about five hundred cubic feet of space.

Q. 154. What do you mean by this?

A. I mean that in a school-room or a lecture-hall or a work-room or a factory there ought to be five hundred cubic feet of space for every person who occupies the room.

Q. 155. Give an illustration of what you mean by your last answer.

A. If a room is twenty feet long and twenty feet wide and ten feet high it will contain four thousand cubic feet of space, and will be large enough, therefore, for eight persons to occupy it.

Q. 156. How do you find out how many cubic feet of space there are in a room?

A. To find out the number of cubic feet of space in a room you multiply the length of the room by its width; then you multiply this result by the height.

Q. 157. If you have the windows open do you require so much space?

A. No; if the windows are open, about half this space, or two hundred and fifty cubic feet for each person, will be enough.

Q. 158. Is it proper to have the windows open?

A. Yes; whenever it is not too cold to allow it, we should have our windows open; it is not natural for persons to live in houses, and when

we do so we ought to let as much pure air come into the house from outside as possible.

Q. 159. Are persons who live in the open air stronger and healthier than those who live in houses?

A. Yes; the Indians and all wandering tribes who live in tents, and are always in the open air, are healthier than persons who live in houses.

Q. 160. What do you mean by a draught?

A. When a current of air is blowing directly through a room it is called a draught, and if we are in a position so that this current of air strikes our bodies, we are said to be in a draught.

Q. 161. Are these draughts dangerous to health?

A. These draughts will do no harm to a strong, healthy person, unless he happens to be over-heated, as from running or hard play.

Q. 162. Will these draughts be injurious to a person who is weak?

A. Yes; if a person who is not very strong

sits or stands in a draught he will be very likely to take cold.

Q. 163. Is it not better to avoid draughts?

A. Yes; the safest course for all is to avoid draughts.

Q. 164. How can we avoid draughts and yet allow the air to blow in the window?

A. In order to have good ventilation we must have an inlet for pure and an outlet for foul air; if we open a window and a door directly opposite to each other we will have a draught, but, if we open a window at one end of the room on one side and a door at the other end on the other side, we will have ventilation without a draught.

Q. 165. What part of the window is it best to open?

A. It is best to pull the upper sash down about four inches, because the foulest air is nearest the ceiling.

Q. 166. Do we require fresh air at night in our bed-rooms?

A. Yes; we should have the upper sash of

the window in our bed-rooms lowered every night.

Q. 167. Should we have the window open in winter?

A. Yes; even on the coldest nights of winter we should have the window opened, but we should have enough clothing to keep us warm, and we should be careful that the bed is not in a draught.

Q. 168. Is night air injurious?

A. No; night air is not injurious to a person in good health.

Q. 169. Can you give an illustration of the poisonous effects of foul air?

A. Yes; the famous "Black Hole of Calcutta" will well illustrate this point. Many years ago one hundred and forty-six English prisoners were crowded, one night, into a little room, with only one window; in the morning one hundred and twenty-three of these prisoners were found dead.

Q. 170. What killed them?

A. They died because there was not enough

oxygen in the air of this little room to keep them alive; after they had breathed in all the oxygen that was in the room and had breathed out carbonic acid they were obliged to breathe back again this carbonic acid, because the one window in the room could not let in enough oxygen for all of these men.

Q. 171. Is carbonic acid poisonous?

A. Yes; if we breathe carbonic acid in its pure state it will kill us in a few minutes, and if there is much of it in the air that we breathe it will make us very weak and sick.

Q. 172. Where does this carbonic acid come from?

A. It is formed in our bodies, and we breathe it out when we expire.

Q. 173. Give an illustration of how necessary pure air is for health.

A. We could live for several weeks without food, and for several days without water, but we could not live five minutes without air.

Q. 174. Is it a good habit to practice deep breathing?

A. It is one of the most healthful of all habits to cultivate deep breathing; consumption kills a very large number of persons, and one of the best ways to prevent consumption is to cultivate the habit of deep breathing.

Q. 175. How can you cultivate the habit of deep breathing?

A. To cultivate the habit of deep breathing you must throw the shoulders well back, close the mouth and expire through the nose until you have breathed out all the air that you can; then you must slowly breathe in through the nose all the air that you can possibly get in; hold it for a few moments and repeat this process.

Q. 176. How will you know if you are breathing properly?

A. If you are breathing properly you will feel your chest swelling up when you place your hands on it.

Q. 177. Should we ventilate our closets and wardrobes ?

A. Yes ; it is very necessary that we should open the doors of our closets and wardrobes for several hours each day, so that the air can have free access to the clothing that is hanging in these places.

LESSON VI.

EXERCISE.

Q. 178. What do you mean by exercise?

A. By exercise I mean motion; that is to say, when any part of the body is moved it is being exercised.

Q. 179. Is exercise necessary for health?

A. Yes; exercise is not only necessary for health, but, without it, life itself would be impossible.

Q. 180. What is the best kind of exercise?

A. Walking is the best kind of exercise.

Q. 181. How far should a person walk each day that health may be preserved?

A. For children, about two miles, and for grown persons, about five miles, daily, would be the proper distance to walk.

Q. 182. Is it possible for us to exercise too much?

A. Yes; and if we exercise too much we will do our health a great deal of harm.

Q. 183. How can we tell if we are exercising too much?

A. Whenever we are exercising and we commence to feel the heart beating in the chest then we can know that we have reached the limit of safety, and we ought to stop, at once, whatever we are doing.

Q. 184. Is it best to exercise in the open air?

A. Yes; whenever possible we should exercise in the open air, out of doors.

Q. 185. Does great strength mean great health?

A. No; great strength does not mean great health; very often those who exercise so that they will be very strong, by so doing injure their health and shorten their lives.

Q. 186. But you have said that exercise is necessary for health?

A. Yes; exercise, or motion, of the body is necessary for health, but if this exercise is carried too far it will injure the health.

Q. 187. Is it necessary to exercise regularly?

A. Yes; to get the best results from exercise we should exercise regularly every day, and not resort to it one day and neglect it the next.

Q. 188. Is running good exercise?

A. No; running is too violent and will not be good for us.

Q. 189. Is riding good exercise?

A. Yes; riding is a very healthful form of exercise.

Q. 190. Is rowing good exercise?

A. Yes; rowing is a very good form of exercise if we go about it slowly and stop as soon as we feel our hearts beating.

Q. 191. What do you say about foot-ball?

A. Foot-ball, as played to-day, is a very dangerous game and is not good exercise.

Q. 192. What about base-ball?

A. Base-ball is less injurious than foot-ball.

Q. 193. What about cricket?

A. Cricket is an excellent form of exercise.

Q. 194. What do you think of swimming?

A. Swimming is a healthful exercise and one of the best, if the following rules are followed :

1. We should not go in swimming within two hours after a meal.
2. We should not go in swimming when exhausted by fatigue or from any other cause.
3. We should not go in swimming when the body is cooling after perspiration.
4. We should not swim at all in the open air if, after having been a short time in the water, it causes chilliness and numbness of the hands and feet.
5. We should avoid chilling the body by sitting or standing undressed on the banks or in boats, after having been in the water.
6. We should leave the water immediately if there is the slightest feeling of chilliness.

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7. The best time for swimming, or ocean bathing, is three hours after breakfast.
 8. Those who are subject to attacks of giddiness or weakness or palpitation of the heart should not go in swimming at all.

LESSON VII.

CLEANLINESS—BATHING.

Q. 195. What do you mean by cleanliness?

A. By cleanliness I mean the removal from every part of the body of the dirt or dead matter that is on it or in it.

Q. 196. How does the body become dirty?

A. The body becomes dirty not only by the dirt which is deposited on it from without, but it is also soiled by dirt that is derived from within the body itself.

Q. 197. Will washing the face and hands every morning make us clean?

A. No; in order that we may be clean we must do much more than merely wash the face and hands.

Q. 198. Is cleanliness necessary for health?

A. Yes; cleanliness is absolutely necessary

for health ; a dirty person cannot be a healthy person.

Q. 199. Will it be sufficient if we, ourselves, are clean ?

A. No ; it will not be sufficient for us to be clean ; we must see to it that our clothing, our houses and the streets of our cities are clean.

Q. 200. Why is it so necessary that our houses and streets should be clean ?

A. It is necessary that our houses and streets should be clean for two reasons :

1. If our houses and streets are dirty, this dirt will poison the air that we breathe.
2. Disease germs always flourish and multiply and grow strong in dirty places.

Q. 201. What constitutes personal cleanliness ?

A. Thorough washing of the whole body with soap and water ; daily combing of the hair ; cleaning the teeth and finger nails, with clean clothing, will constitute personal cleanliness.

Q. 202. How often is it necessary to bathe the whole body?

A. It would be best if you would take a full bath every day, but it should not be taken less often than once a week.

Q. 203. Is it necessary to comb out the hair?

A. Yes; the hair should be well combed daily, in order to remove the dirt and dust and dandruff that has accumulated.

Q. 204. Is it necessary to clean the finger nails?

A. Yes; the finger nails should be always kept clean, for in the dirt, under these nails, disease germs will grow and multiply, and if a boy with dirty nails should scratch himself or some one else he would be liable to make a very ugly sore that would be very hard to heal.

Q. 205. Is it necessary to clean our teeth?

A. Yes; from the time the teeth first appear in the baby they should be cleaned, at first with a soft rag, and afterwards, with boys and girls and men and women, they should be well

brushed and the mouth well rinsed out with water after each meal.

Q. 206. Why is it so necessary to clean the teeth?

A. If we do not brush away from the teeth all particles of food that may lodge between them, these particles will rot and will cause the teeth to decay; we will suffer with toothache, and, after a while, our teeth will be gone, and we cannot chew our food, so that it will not be properly digested, and our bodies will not have good blood to nourish them.

Q. 207. Will dirty teeth make us sick?

A. Yes; it is very possible that the dirt on our teeth and in our mouths may be swallowed into the stomach, absorbed into the blood and carried all over our bodies to make us sick in every part.

Q. 208. What is the cause of bad breath?

A. Want of cleanliness of the mouth and teeth will make the breath bad.

Q. 209. If a person is very careful about

cleaning the teeth and mouth and yet has a bad breath, what is the cause?

A. If a person with clean teeth and mouth has a bad breath it is very likely that the stomach is out of order.

Q. 210. Why should we have our teeth examined at stated intervals?

A. We should have our teeth examined once a year by a good dentist, because if decayed teeth are filled before pain occurs they will last for years.

Q. 211. Is it bad for the teeth to eat very cold articles immediately after something that is hot?

A. Yes; if we put something cold into the mouth immediately after something that is hot it will be very apt to crack the enamel and cause the teeth to decay.

Q. 212. Should we always wash our hands before eating?

A. Yes; it is most important that we should always wash our hands before sitting down to a meal; something that we have been hand-

ling may have had disease germs on it, and if we do not wash our hands these germs may get on our food and into our stomachs.

Q. 213. How can you make a bath more cleansing?

A. You can add to the cleansing powers of a bath by putting into it two tablespoonsful of "Household Ammonia." This will be very good for the skin.

Q. 214. Is it necessary for our clothing to be clean?

A. Yes; it is necessary that we should frequently change our underclothing, that which we wear next to the skin, because it becomes dirty from the dirt of the skin.

Q. 215. How often should we change our underclothing?

A. If we can afford to do so our underclothing should be changed every day; but it must be changed, at least, twice a week in summer and once a week in winter.

Q. 216. If we cannot change our undercloth-

ing daily, what should we do with it at night, when we go to bed?

A. When we go to bed, at night, we should hang our underclothing over the back of a chair, near an open window, so that it shall be well aired while we sleep.

Q. 217. What should we do with our night clothing in the morning?

A. When we have dressed in the morning we should hang our night clothing over the back of a chair, near an open window, and let it air, at least, until after breakfast.

Q. 218. Does the bed clothing become soiled?

A. Yes; the sheets have been soiled by contact with our bodies during the night, and they should be aired, in the morning, before the bed is made up for the day.

Q. 219. Are cold or warm baths the most healthful?

A. As a rule, warm baths are the most healthful; in Japan, where the people take hot baths every day, rheumatism is unheard of.

Q. 220. What is the best time to bathe?

A. The best time for a hot bath is the last thing before going to bed at night.

Q. 221. Is it bad to let the water in which we have washed remain in our bed-rooms?

A. Yes; all such dirty water should be removed as quickly as possible; it will poison the air that we breathe.

Q. 222. Is it bad for our health to have slops standing about the kitchen or the back door?

A. Yes; slops consist of decomposing organic matter, and will poison the air we breathe; they should be taken away as soon as possible.

Q. 223. What is the best way to dispose of slops in cities?

A. The best way to dispose of slops, or garbage, in cities, is to burn it.

Q. 224. How should we clean our houses?

A. Every room in every house should be swept and dusted, if not daily, at least once or twice every week, and, at least, four times in

the year, all the wood work should be scrubbed with water and washing soda.

Q. 225. What do you mean by plumbing?

A. By plumbing I mean that we have in our houses pipes to carry clean water into and other pipes to carry dirty water and other liquid refuse away from these houses.

Q. 226. Where do these pipes, that carry the dirty water and refuse away, run to?

A. In cities, where they have sewers, these pipes terminate in the sewer out in the street.

Q. 227. What is a sewer?

A. A sewer is a large pipe laid under the streets of cities and is intended to carry away the dirty water and refuse matter of the houses of the city.

Q. 228. What do you mean by refuse?

A. By refuse I mean the waste matter from persons that is capable of mixing with water.

Q. 229. What do you mean by sewer gas?

A. By sewer gas I mean a poisonous air that is formed in these sewers.

Q. 230. Is sewer gas injurious to health?

A. Yes; if we breathe much sewer gas it will ruin our health.

Q. 231. How does sewer gas get into our houses?

A. Sewer gas comes back from the sewers through the pipes that are carrying the dirty water away from our houses and floats up and mixes with the air of the house.

Q. 232. Can we keep this sewer gas out of the house, and, if so, how?

A. We can keep sewer gas out of our houses by having the plumbing work done by a good plumber and by learning how this work should be done, so that we can be sure that it is done properly. We can also help to keep this gas out by pouring down all of our waste pipes, every night, a lot of water in which we have dissolved a quantity of washing soda.

Q. 233. Is it wrong to throw solid articles into water closets?

A. Yes; you should never throw anything solid, or anything that will not dissolve in

water, into a water closet, because it will be apt to block up the pipe and make much trouble and expense.

Q. 234. How shall we keep the streets of our cities clean?

A. The people should insist upon it that the authorities of the city should first pave the streets so that they will be nice and smooth and they should then be swept clean every day.

Q. 235. Is this done anywhere?

A. Yes; in the city of Florence, in Italy, and in some other cities, men are always walking the streets, with big baskets on their backs and a broom and shovel in their hands; wherever they see any dirt it is, at once, swept and shoveled up into the basket.

Q. 236. What should we do with this street dirt?

A. It should either be burned or carried away off into the country far away from the city.

LESSON VIII.

SLEEP.

Q. 237. Is sleep necessary for health?

A. Yes; without sleep life is impossible.

Q. 238. How many hours out of the twenty-four should a person sleep?

A. About eight hours of the twenty-four should be devoted to sleep.

Q. 239. Is it important that we should be regular in our hour for going to bed?

A. Yes; it is most important for us to go to bed at a regular hour and get up at a regular hour.

Q. 240. Is it bad for our health to go to bed at different hours on different nights?

A. Yes; this irregularity will be very injurious.

Q. 241. At what hour should children go to bed?

A. Children should all be in bed by eight o'clock, and they ought to get up at from six to seven o'clock in the morning.

Q. 242. Why is sleep so necessary to health?

A. Because when we are moving about all day every part of the body gets tired, and if we did not give it a chance to rest it would become so weak and exhausted that we would die; when we are asleep the body is resting and getting strong for the next day.

Q. 243. If, because of some important work, we cannot get our full amount of sleep some night, what should we do?

A. If we miss the full amount of sleep any night we should make it up either by taking a nap the next day or sleeping the next night as much more as we have lost the night before.

Q. 244. What do you mean by a damp bed?

A. By a damp bed I mean that the sheets have not been thoroughly dried and aired after washing.

Q. 245. Are damp beds unhealthful?

A. Yes; sleeping between sheets that are not thoroughly dry will cause a great deal of sickness.

Q. 246. When we are away from home in strange hotels are we not very likely to find the sheets damp?

A. Yes; we are very likely to find damp sheets in hotels.

Q. 247. What can we do to avoid the danger from damp sheets in hotels and strange houses?

A. The great orator, Wendell Phillips, who traveled a great deal, always carried in his trunk a woolen bag, large enough to hold his body; at night he would get into this bag and tie it around his neck; he was thus protected from the damp sheets.

Q. 248. Is it bad to have pillows under our heads when sleeping?

A. We ought to have a bolster or one pillow under the head when sleeping, but not more, because, if we raise the head too high, it will

make us round-shouldered and give us crooked spines.

Q. 249. Is it important that our heads should be cool?

A. Yes; it is very essential to health that our heads should be cool, particularly when we are asleep.

Q. 250. How can we cool our heads on the hot nights of summer?

A. A folded newspaper or a pamphlet laid between the head and the pillow will help to keep the head cool on the hot nights of summer.

Q. 251. If a child gets frightened in the dark and asks for a light in the bed-room at night, what should we do?

A. We should never force a child to sleep in the dark if it becomes frightened; we should allow a light in the room; if we force the child to get used to the darkness we may injure its health beyond repair.

Q. 252. What should be the temperature of our bed-rooms?

A. The temperature of our bed-rooms, as of

any room or house in which we live, that is most conducive to health is about 70° Fahrenheit.

Q. 253. Is it bad for us to sleep in the same room with a person who has consumption?

A. Yes; if we sleep in the same room with a person who has consumption we will be very apt to take this disease ourselves.

Q. 254. Ought we to be warmly dressed at night, when asleep?

A. Yes; we ought to be dressed warmly enough not to feel the cold; it is best to keep ourselves warm at night rather by clothing the body than by having very heavy bed clothing.

LESSON IX.

CLOTHING.

Q. 255. Why do we wear clothes?

A. For decency and to prevent the heat that is made inside of our bodies from getting out too fast.

Q. 256. Is heat made inside of our bodies?

A. Yes; inside of our bodies we make heat just the same as it is made inside of the stove by the burning of coal.

Q. 257. Is it necessary for health that our bodies should make heat?

A. Yes; in order that we may live the temperature of the inside of our bodies must be about 98° Fahrenheit, and, in order that this heat may be maintained, it is necessary that we shall be making heat all the time inside of our bodies.

Q. 258. How is this heat regulated so that the temperature of the body shall be always the same?

A. The heat is radiated from the surface of the body just in the proper amount to always keep the body at the proper temperature.

Q. 259. Will not this heat be more rapidly radiated in cold weather?

A. Yes; and it is because of this fact that we wear heavy, thick clothing in winter, so as to hold the heat and prevent it from being given off or radiated too rapidly.

Q. 260. Why should we wear dark-colored clothing in winter?

A. Because dark-colored clothing will absorb the heat of the sun and keep us warmer.

Q. 261. Why do we wear light-colored clothing in summer?

A. Because light-colored clothing will repel the heat of the sun and keep us cooler.

Q. 262. Is it bad to keep our clothing on when we have been caught in the rain and are wet?

A. Yes; if our clothing is wet we should

change it as soon as we get home or we will be very apt to catch cold.

Q. 263. Are wet feet dangerous to health?

A. Yes; wet feet are very dangerous, and we should always be careful to change our wet shoes and stockings as soon as possible.

Q. 264. Is it important that we should keep our feet warm?

A. Yes; our feet should be always warm; we should be careful to wear stockings thick enough to keep them warm because cold feet are very unhealthy.

Q. 265. What do you say about the feet and the head?

A. To have good health we must always keep our feet warm and our heads cool.

Q. 266. What kind of shoes should we wear?

A. We should wear low, broad shoes that are a full quarter of an inch longer than the foot.

Q. 267. Are high-heeled shoes injurious?

A. Yes; high-heeled shoes are not only hurtful to the feet, but they will throw the whole

body out of shape, and will thus give us bad health.

Q. 268. What will be the effect of shoes that do not fit?

A. If you wear shoes that do not fit they will rub some part of the foot and will make corns and bunions and cause you much pain.

Q. 269. What is the cause of ingrowing toe nail?

A. Ingrowing toe nail is the result of wearing shoes that are too short and too narrow across the toes.

Q. 270. What do you think of shoes with pointed toes?

A. We should not wear shoes with pointed toes; they will ruin the foot; shoes should be broad and square at the toes.

Q. 271. Should we wear low-cut shoes and slippers?

A. Low-cut shoes and slippers are very good in summer, but we should not wear them in winter; the feet will be cold, and we will be very likely to catch cold.

Q. 272. What parts of the body should we be particularly careful to protect from the cold?

A. We should be particularly careful to protect the chest and the abdomen from the cold, because they contain the vital organs.

Q. 273. How should we protect the chest and abdomen from cold?

A. At the first approach of cool weather we should commence to wear a good, thick, warm woolen undershirt, long enough to reach to the hips and to button well up to the root of the neck.

Q. 274. What do you say about corsets?

A. Corsets are injurious to health if laced tightly, and it would be better not to wear them.

Q. 275. Why do women wear corsets?

A. Women wear corsets because, as the result of generations of wrong living, their bodies are weak, and they feel the necessity of some artificial support.

Q. 276. Has God given us a natural corset?

A. Yes; the ribs or the bones of the chest

make a natural corset, and furnish all necessary support to the organs within.

Q. 277. If not laced tight will corsets do harm?

A. No; corsets will not be specially injurious if they are not tightly laced.

Q. 278. What will be the effect of tight lacing?

A. Tight lacing will be very likely to cause disease of the liver and stomach, and even consumption of the lungs.

Q. 279. Is it right to wear mufflers around the throat in winter?

A. No; if you make a habit of wearing a muffler around the throat it will make the throat weak, and if you forget to wear it on some cold day you will be likely to have a sore throat.

Q. 280. What do you say about garters and tight belts?

A. Garters or tight belts, or anything that fits tightly about any part of the body, will interfere with the free flow of the blood, because

they will press upon the pipes in which the blood flows.

Q. 281. How, then, can we hold up our stockings?

A. Our stockings should be held up by tapes fastened to our drawer bodies.

Q. 282. Should boys wear suspenders?

A. Yes; boys should support their pants, with suspenders, from the shoulders, because, if they button them tightly around the waist, or if they hold them up with a strap or a belt, fitting tightly around the waist, this pressure will injure the delicate organs inside of the body.

Q. 283. Is tight lacing sinful?

A. It is sinful for any one to lace tightly. God has given us plenty of room for our organs of life to work in, and when we put on corsets and lace them tightly, so as to make the waist small, we are ruining our organs by cramping them, and we are guilty of the sin of presumption, because we are insulting the intelligence of God, in presuming to think that He did not know how to make us right.

Q. 284. Should our collars fit tightly about the neck?

A. No; a tight-fitting collar will be very apt to cause headache and to ruin our eyes.

Q. 285. If we wear overshoes to school on rainy days what should we do with them?

A. We should remove them, at once, upon entering the school-room, and place them where they will dry.

Q. 286. What should we do with our overcoats and cloaks and extra wraps when we enter a house?

A. We should, at once, remove all outside wraps when we enter a house, and, in cold weather, we should never go out of doors without putting on something more than we have been wearing in the house.

Q. 287. What do you say of the relationship between bad temper and dress?

A. Ill-fitting clothing; tight shoes; tight collars, or anything that is not comfortable about the clothing is a frequent cause of bad temper

LESSON X.

WATER AND DRINKS—ALCOHOL.

Q. 288. What is water?

A. Water is a combination of oxygen and hydrogen.

Q. 289. Is water necessary for health?

A. Yes; without water life would be impossible.

Q. 290. What do you mean by pure water?

A. By pure water I mean water as it is found in nature, without any of the refuse of organic life

Q. 291. What do you mean by impure water?

A. By impure water I mean water in which there are disease germs, or that has been in any way contaminated by organic refuse.

Q. 292. Give an illustration of pure water.

A. Distilled water is perfectly pure water,

because by distillation everything impure is removed from the water. - !

Q. 293. What evidence have we that God wishes us to use water freely ?

A. God has made two-thirds of the world water, which looks as though he wanted us to use water freely.

Q. 294. Is it possible for us to drink too much water ?

A. No; if the water is pure we cannot drink too much of it, unless it be that we are overheated by exercise or fatigue, when we should not drink until we cool off some.

Q. 295. What are the dangers of impure water ?

A. Impure water is generally full of disease germs, and is very apt to cause typhoid fever and other diseases.

Q. 296. Does clear water mean pure water ?

A. No; the fact that water is clear is not proof that it is pure; oftentimes water that is clear and sparkling is very dangerous to health.

Q. 297. Is muddy water dangerous to health?

A. No; the fact that water is muddy is not proof that it is dangerous to health.

Q. 298. Can you give a simple test for the purity of water?

A. A simple method to test for impurities is to dissolve a lump of loaf sugar in a clean bottle, filled with the suspected water; close the bottle with a close-fitting glass stopper, and set it in the window where the sunlight will fall upon it. If the water remains bright and limpid, after a week's exposure, it is fit for use; but, if it becomes turbid, it contains enough impurities to be unhealthful.

Q. 299. Is well water healthful?

A. Water from wells in cities should never be used, as it is almost sure to be impure, and it is better not to use well water even in the country.

Q. 300. Should wells be cleaned out?

A. Yes; if you use well water the wells should be cleaned out, at least, once every year.

Q. 301. What is the best way to get drinking water in the country ?

A. We will get the purest water in the country from running streams and springs; wells should always be looked upon with suspicion.

Q. 302. Is rain water pure ?

A. Yes; rain water is very pure; but we must be careful to see that the cistern, in which it is stored, is cleaned out at regular intervals; in New Orleans, where they use rain water to a great extent, they have very little typhoid fever.

Q. 303. If we know that water is impure, yet have no other to use, what should we do ?

A. If our water is impure we should first boil it, and then let it stand for an hour; draw off the upper water and use this, throwing away the sediment.

Q. 304. Is impure water bad for cattle and horses ?

A. Yes; we should be just as careful about the water that we give our animals to drink as with that which we use ourselves.

Q. 305. Is snow pure?

A. No; snow is very impure; as it falls to the ground it carries down with it the disease germs that are in the air, and the practice of eating snow, so common among children, causes much disease.

Q. 306. Is ice always pure?

A. No; if ice is made from impure water it will contain all the impurities of the water from which it is made, and when the ice melts the germs will be set free to cause disease.

Q. 307. Is alcohol food?

A. No; alcohol will not nourish the body.

Q. 308. What do you mean by temperance in the use of alcohol?

A. By temperance I mean the use of alcohol in such quantities as will not make us drunk and will not produce disease.

Q. 309. Will alcohol cause disease?

A. Yes; if used to excess alcohol will cause disease.

Q. 310. What do you call excess?

A. The amount that would constitute excess

cannot be definitely stated ; that which would constitute excess in one would be moderation in another.

Q. 311. Is alcohol of any benefit to health ?

A. To some persons, who are not very strong, a little alcohol is beneficial.

Q. 312. What would you say about the use of alcohol by children ?

A. Alcohol is never required by children, and they should never taste it ; it will interfere with their growth and healthy development.

Q. 313. To what class of people would alcohol be beneficial ?

A. Alcohol is often beneficial to those who are not very strong and to aged persons.

Q. 314. In answering these questions on alcohol, what do you mean by alcohol ?

A. By alcohol I mean brandy, whisky, gin, beer, ale and wines ; such liquors as are sold in stores for drinking purposes.

Q. 315. Is cider a good drink ?

A. New cider is a very healthful drink ; old

cider is not so good, because it contains too much alcohol.

Q. 316. What do you mean by an intemperate person?

A. By an intemperate person I mean one who drinks enough alcohol to make him sick and cause him to neglect his work.

Q. 317. Can you give me a good temperance proverb?

A. A German proverb says: "Intemperance drives reason out of the head, money from the pocket, the elbows through the sleeves and health from the body."

LESSON XI.

CARE OF THE EYES AND EARS.

Q. 318. Is it wrong to look cross-eyed?

A. Yes; if we make a habit of looking cross-eyed for fun, our eyes may become permanently fixed in this position.

Q. 319. How should the light from without enter a room?

A. We should so arrange our desks or tables that the light will come from behind and over the left shoulder.

Q. 320. What is the best of all lights?

A. Sunlight is the best of all lights for the eye.

Q. 321. What is the best artificial light?

A. The incandescent electric light is the best artificial light.

Q. 322. When reading should we allow the sun to shine directly on the book?

A. No; if the sun shines directly on the book or paper it will injure the eyes.

Q. 323. When reading at night should we allow the artificial light to strike the eye?

A. No; we should sit with our back to the light, so that it will strike the page over our shoulders and will not shine directly on the eye.

Q. 324. What should we do to help the eyes when sewing or reading fine print?

A. Reading fine print and sewing, especially by artificial light, is very hard on the eyes, and we should stop our work every now and then and rest the eyes for a few seconds.

Q. 325. Is it wrong to read while walking or riding?

A. It is very injurious to read while walking or riding in cars or carriages, because the jolting makes the print unsteady, and it is a great strain on the eyes to follow this unsteady print.

Q. 326. Is it injurious to use the eyes at twilight ?

A. Yes ; we will ruin our eyesight if we use our eyes to read or sew at twilight or in a poor artificial light.

Q. 327. Are the eyes easily put out of order ?

A. The eyes are very delicate organs, easily put out of order, and we should be most careful of them.

Q. 328. Is it wrong to let the sun shine on a baby's eyes ?

A. Yes ; it will be very injurious to the eyes of a baby if the sun shines directly on them ; if in a coach the eyes should be protected with a parasol.

Q. 329. Is it wrong to have a light in the bed-room at night ?

A. We will sleep better if the room is dark, but it will do the eyes no harm if we have a low light, covered with a shade, so as to protect the eyes.

Q. 330. What do you say about the sore eyes of babies ?

A. A great deal of blindness is caused be-

cause mothers neglect the sore eyes of little babies; whenever a baby has sore eyes the doctor should be called at once.

Q. 331. Is it dangerous to "box" the ears?

A. Yes; "boxing" the ears is a very dangerous practice; it may cause permanent deafness.

Q. 332. Should we cover the ears in cold weather?

A. A person who is subject to earache should never go out of doors in cold weather without covering the ears.

Q. 333. Is it dangerous to pick at the ears?

A. Yes; it is very dangerous to put the finger far into the ear to scratch it; if the ear itches far in, the finger should be covered with a piece of soft rag before it is introduced into the ear.

Q. 334. Will draughts cause earache?

A. Draughts will be very likely to cause earache, and if we are subject to it we should be careful to avoid them.

Q. 335. When swimming, is it dangerous to dive?

A. Diving is a dangerous practice; it may cause earache, and it may ruin hearing for life.

Q. 336. Is it wrong to push beads and beans into the ears and nose?

A. It is a very dangerous practice to push beads and beans, and such articles, into the nose and ears; it may cause deafness and may even kill us.

LESSON XII.

OUR HOMES.

Q. 337. What do you mean by a damp house?

A. By a damp house I mean that the walls of the house and the air inside of the house are full of water.

Q. 338. Is a damp house unhealthy?

A. Yes; a damp house will cause much disease, and no one should live in it.

Q. 339. Is sunlight necessary for health?

A. Yes; sunlight is necessary for health; a person may live who is never in the light of the sun, but he will not be vigorous or healthy, and he will be an easy prey to disease.

Q. 340. If the sun shines fully on a house will it be damp?

A. No; a house upon which the sun shines

freely cannot be damp, and no one should live in a house upon which the sun does not shine.

Q. 341. Is it unhealthful to build a house on damp ground?

A. Yes; we should always select high and dry ground on which to build our houses.

Q. 342. Are cellars unhealthful?

A. Yes; there is no reason why we should have cellars to our houses, and it would be better for health if we did not have them.

Q. 343. Why are cellars so unhealthful?

A. Cellars are unhealthful, because, being below ground, they are generally dark and damp, as the sun cannot get into them to dry them, and because they are not regularly cleaned, as the upper portions of the house are.

Q. 344. If cellars were regularly cleaned would they be unhealthful?

A. They would not be so bad, but they would, very likely, be damp.

Q. 345. Is it wrong to store vegetables in the cellar?

A. Yes; it is wrong to store large quantities

of vegetables in the cellar, because they will rot and will make the air of the cellar and of the house impure and unhealthful.

Q. 346. How can we avoid disease from the cellar?

A. We can avoid disease from the cellar by seeing that it is clean, well ventilated and dry; by having the walls and ceiling whitewashed four times a year and by having a quantity of unslaked lime standing about in open boxes.

Q. 347. Should cellar floors be cemented?

A. Yes; cellar floors should always be cemented, because, if they are not, the ground air, which is unhealthful, will rise up into the house.

Q. 348. What do mean by ground air?

A. By ground air I mean that there is always a quantity of air in the earth of every locality.

Q. 349. Is it healthful to have trees near our houses?

A. We should never have trees so close to our houses that the sun is prevented from

shining on the house, for if the sun does not shine upon a house it will be damp.

Q. 350. What do you say about sunshine and doctors?

A. An old saying is that "to the house upon which the sun shines not the doctor will be a frequent visitor."

Q. 351. What does this saying mean?

A. This saying means that if the sun does not gain access to the house there will be much sickness in the house.

Q. 352. Is it right to have our bed-rooms on the first floor?

A. We should, if possible, locate our bed-rooms on the upper floors.

Q. 353. How can we best ventilate the rooms in our houses?

A. By having an open fire-place in each room, with a little fire in it.

Q. 354. How can we keep the closets in our rooms dry?

A. A small box, filled with lime, and placed

on a shelf in the pantry or closet, will absorb dampness and keep the air dry and sweet.

Q. 355. Is it unhealthful to have our rooms too warm?

A. Yes; if we have the temperature of our rooms always above 70° Fahrenheit, it will make us weak and very liable to catch cold when we go out of doors.

Q. 356. If we feel chilly in a room with a temperature of 70° Fahrenheit, what does it mean?

A. If we feel chilly in a room where the temperature is 70° Fahrenheit, it means that we are not strong and healthy, and that we are passing too much of our time indoors.

Q. 357. What should we do when we thus feel chilly?

A. We should go out, *at once*, for a long, brisk walk.

Q. 358. Why should we remove weeds from about country houses?

A. We should keep the ground near the house free from weeds, because the servants

will be very apt to throw slops and dirty water out on the ground ; the weeds will hide this dirt ; it will rot and poison the air about our homes.

Q. 359. What good use can we make of dirty water in the country ?

A. If we have fruit trees it will do them good to empty this dirty water on the ground close to the trees.

Q. 360. Is it necessary that cow stables and pig pens should be kept clean ?

A. Yes ; it is just as necessary to have clean houses for our cows and pigs as for ourselves ; dirty stables and dirty pens will make bad milk for us to drink and bad meat for us to eat.

Q. 361. If a farmer, who sells milk, has any contagious disease in his family, what should he do ?

A. If a farmer, who sells milk, has any contagious disease in his family, he should be careful that no thing nor person from the sick room should go near his cows or his milk cans, or the water in which he washes his cans.

Q. 362. If he cannot take these precautions what is his duty?

A. If he cannot take these precautions it is his bounden duty not to sell his milk until the sick person is well and everything about his premises has been disinfected.

Q. 363. Can milk convey the germs of disease from one place to another?

A. Yes; there is nothing that will so eagerly take hold of disease germs and carry them from one place to another as milk.

Q. 364. If a dairy farmer has a sick cow what is his duty?

A. It is the duty of a dairy farmer never to sell the milk from a cow that is sick.

LESSON XIII.

OUR CITIES.

Q. 365. Is the air of the country purer than that of a city?

A. Yes; the air of the country is purer than that of a city; the air of any locality where but few persons live in a given space will always be purer than where a larger number live in equal space.

Q. 366. What do you say about the width of streets?

A. The streets of a city should always be wider than the height of the houses on these streets; if they are not, the sun cannot shine on them; they will be damp, and the houses on such narrow streets will be unhealthful.

Q. 367. Is there any relation between narrow streets and consumption of the lungs?

A. Yes; consumption of the lungs is much

more prevalent in houses on narrow than in those on wide streets.

Q. 368. Should we have trees in cities?

A. Yes; we should plant trees in cities; they will make cooler weather in summer, and they will help to keep the air pure.

Q. 369. What do you mean by a slaughter-house?

A. A slaughter-house is a place where animals are killed and cut up into meat.

Q. 370. Is it wrong to have slaughter-houses in cities or villages?

A. Yes; it is very dangerous to the health of the people to have slaughter-houses in cities or villages unless the greatest care is taken to keep them perfectly clean; it would be better to locate slaughter-houses in the country, away from villages or cities.

LESSON XIV.

OUR HABITS.

Q. 371. What do you mean by "eating air?"

A. By "eating air" I mean that when you first get up in the morning you should go to an open window, or, when dressed, go out of doors, and for five minutes take the longest breaths you can; drawing all the air you possibly can into the lungs; this is a habit that will be splendid for health.

Q. 372. What do you mean by the alcohol habit?

A. By the "alcohol habit" I mean the habit of regularly drinking a quantity of liquor every day.

Q. 373. Is the alcohol habit injurious to health?

A. To most persons it will prove injurious.

Q. 374. What is the greatest danger in the alcohol habit ?

A. The greatest danger in the alcohol habit, as in the use of alcohol at all, is the fact, peculiar to alcohol, that the more we use of it the more we want, and we soon get into the habit of using so much that it becomes injurious to health.

Q. 375. Will this rule hold good with everybody ?

A. No ; while this rule holds good with the majority of persons, there are exceptional cases where the person is able to control himself and use liquor regularly without going to excess.

Q. 376. Will the liquor habit injure a person who has this self-control ?

A. No ; a person who can thus control himself will not be injured by the liquor habit ; but no one can tell if he has the requisite self-control, hence he had better not commence the habit.

Q. 377. What do you say of the tobacco habit ?

A. Of the tobacco habit I would say the same as I have said of the alcohol habit. Tobacco is not food ; it is not necessary to life or health ; if used to excess it will injure health and may cause sudden death ; if used in moderation by men it will not injure health.

Q. 378. Is tobacco injurious to children ?

A. Tobacco is a poison to children ; it will ruin their health, check their growth and make them weak and sickly men.

Q. 379. Should we breathe through the mouth ?

A. No ; we should make it a habit to keep the mouth closed and breathe through the nose. God has so arranged the inside of the nose that, if we breathe through it, much of the impurity of the air and many of the germs of disease will be stopped in the nose before they can get into our bodies ; also, if we breathe through the nose, the air will be warmed before it reaches the lungs.

Q. 380. What is the danger of breathing through the mouth ?

A. If we breathe through the mouth dust, dirt and disease germs will rush down into the lungs, and, growing there, will affect the whole body.

Q. 381. But suppose you cannot draw the air through the nose?

A. If you cannot breathe through the nose there must be something wrong with the nose, and you had better consult a doctor.

Q. 382. What do you say about the habit of spitting?

A. It is a disgusting habit, and is very likely to cause disease; God intends that we shall swallow our saliva, and not spit it out on the street or in cars, on the floor or in public places.

Q. 383. How can the spitting habit cause disease?

A. The germs of consumption are found in the expectoration of consumptives, and, if they spit on the ground, when the expectoration dries these germs will be diffused into the air and may cause consumption in any one who inhales them.

Q. 384. How should a consumptive expectorate?

A. A consumptive should always expectorate into a spittoon or other receptacle in which there is a solution that will kill these germs.

Q. 385. What will kill these germs?

A. A solution of corrosive sublimate will kill these germs.

Q. 386. Is it a bad habit to run up stairs?

A. Running up stairs is very injurious, and will be very apt to give us heart disease; we should always walk.

Q. 387. Is it a bad habit to bite our threads when sewing?

A. Yes; we should never bite our threads when sewing, as by so doing we may chip the enamel of our teeth, which will favor their decay.

Q. 388. Ought we to try to control our temper?

A. Yes; we ought to try very hard never to lose our temper; George Bancroft, the venerable historian, once told a party of young ladies

that the secret of long life lay in never losing one's temper. "If you will never get angry," he said, "you will live to be ninety."

Q. 389. Is hard study at night bad for the brain?

A. Yes; the habit of studying at night, by artificial light, is bad for the brain and the eyes.

Q. 390. What is the best time for study?

A. The best time for study is in the early morning; we should read our lessons over in the afternoon or evening, and study them the next morning.

Q. 391. Are alcohol and tobacco in excess bad for the brain?

A. Yes; while the excessive use of alcohol and tobacco is injurious to all parts of the body, it is particularly bad for the brain.

Q. 392. What is the proper position for standing?

A. We should cultivate the habit of standing with the head erect; the stomach drawn

in; the chest thrown out, and the shoulders drawn back.

Q. 393. What is the proper position for sitting?

A. We should sit squarely on the chair or bench; should not cross the legs; should hold the body, from the waist up, erect, and should keep the shoulders well back.

Q. 394. Is it bad to worry?

A. Yes; worry is very bad for health, and we should cultivate the habit not to worry.

Q. 395. Is it possible to cultivate the habit of not worrying when there is cause?

A. Yes; a firm belief in God and religion, with a firm conviction of the uselessness of worry, will enable us to form this habit. We should always do the best we can, and then, if things go wrong, we ought not to worry about it, for it will do no good to worry.

Q. 396. Is it right to walk in the sun?

A. We should cultivate the habit of walking on the sunny side of the street in winter and on the shady side in summer.

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